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Final Report

March 1976

Organizational Influence:
Interpersonal Power
in Military Organizations

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18. SUPPLEMENTARY NOTES This Final Report includes an account of the principal investigator's activity on this research project under a previous ONR contract (N00014-67-A-0299) covering the period 1 October 1971-31 August 1972.		
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Research activities are described over a four-year period of study of interpersonal influence (leader power) in the military. The study included two phases. During Phase I interpersonal influence questionnaires were administered to three samples of enlisted men (Total N=1596) at three stages of their military careers--new recruits, basic trainees, and enlisted men with two years of duty. The questionnaire probed leadership power		

20. Abstract (cont'd.)

and leadership climate dimensions. Abstracts of six technical reports of the findings are reproduced. Previously unreported data involving cross-service comparisons of the leadership power and climate expectations of recruits from the Navy, Air Force, Marine Corps and Army are included. Also reported are results from 89 Naval Officers who completed an interpersonal influence attitude questionnaire.

Phase II of the study involved the development and administration, to 110 officers and 110 enlisted men, of an indirect measure of leadership power attitudes based on critical incidents in Navy leadership. Abstracts of three technical reports describing this activity are reproduced.

The major conclusion from the total study is that enlisted men report heavy reliance by military superiors on leadership power based on rank, authority, threats, and punishment. Enlisted men favor greater use of leadership power based on knowledge, experience, and mutual trust and respect; they felt they would perform duty better and exhibit higher morale under a leadership climate more like the human relations orientation typical of work environments in the civilian sector. Naval officer questionnaire responses show awareness of this situation and indicate a discrepancy between leadership attitudes and actual leadership behavior. Why this discrepancy exists remains an unanswered question which should be given priority research attention.

ORGANIZATIONAL INFLUENCE: INTERPERSONAL POWER
IN MILITARY ORGANIZATIONS

Project Overview

This project, entitled "Organizational Influence: Interpersonal Power in Military Organizations," was initiated in September 1971 and ran, with several modifications and amendments, until October 1975. The broad purpose of the project was to investigate the bases, the operation and the consequences of interpersonal power and control in military organizations.

When the research was first proposed in 1969 there was the added impetus of the likely ending of the draft and the uncertainty surrounding the manner in which the armed services could successfully adapt to an all-volunteer system of recruiting and personnel retention. Many, including the principal investigator, suspected that the process by which interpersonal power and authority had been traditionally exercised in the military would need to change. The all-volunteer services would be in more direct competition with the civilian sector for human resources. Since the early 1950's the expression of superior-subordinate authority in organizations in the civilian sector had been evolving toward a model characterized by greater concern for the individual, more attention to the maintenance of positive superior-subordinate relations, fewer expressions of coercive power, more frequent attempts at participative decision making, and a trend away from close supervision and toward greater individual autonomy in work performance. This set of changes has been referred to as the "human relations movement."

While leadership practices in the military had also been changing over this same period, it did not take any great observational acumen to conclude that the military had not moved as far along the human relations scale as had the civilian sector. With the prospect of the draft ending, there was genuine concern that the military might be hard pressed to compete with the civilian sector for personnel. Of course, the issue of leadership practices was only one of several. Military-civilian comparisons on pay, opportunity for advancement, attractiveness of job assignments and other factors were also important.

Hollander and Julian (1969) targeted power and authority relationships as of increasing importance as a topic of organizational effectiveness research in the 1960's. It had become clear by 1969 that no amount of emphasis on human relations would remove concern for the interpersonal power process in organizational life.

For the purpose of this project, interpersonal power was conceptualized as a process. The process of power was defined as a set of relations between superior and subordinates and the French and Raven (1959) classification of five bases of leadership power was used as an organizing content theme for the research: (1) legitimate power based on rank and position; (2) expert power based on knowledge; (3) reward power based on positive rewards; (4) referent power based on personal respect; and (5) coercive power based on negative sanctions and punishment.

The research was conducted in two phases. The balance of this report will be devoted to a brief description of these

research phases and will refer the reader to the technical reports that describe the findings from each phase.

The research project was undertaken while the principal investigator was a faculty member at Colorado State University. After the first year of the project, the principal investigator joined Battelle's Human Affairs Research Centers in Seattle, Washington. This move did not affect the actual conduct of the research, even though it necessitated a new contract. A partial report of the research activities completed during this first year of the project is contained in: Nealey, S. M. Perceptions of Navy Basic Training. Final Report, Seattle, Washington: Battelle, Human Affairs Research Centers, October 1972. However, most of the results reported in the October 1972 Final Report are contained in the set of Technical Reports listed below under Phase I.

Phase I

A. Previously Reported Results

Parallel interpersonal influence questionnaires were administered to three samples of enlisted Navy men at three points in their careers: raw recruits about to enter boot camp (N=303), trainees nearing the end of boot camp (N=365), and enlisted men with nearly two years of enlisted experience (N=599). The questionnaires probed perceptions of five leadership climate dimensions and the five French and Raven (1959) modes of interpersonal power as they related to the experiences, the expectations, the comparison with civilian leadership, and the preferences of these

samples of enlisted men with differing amounts of Navy experience. The research design was a static group comparison; in other words, the three samples of respondents were not the same individuals at three points in their careers. However, the timing of the data collection during Phase I was such that the respondents all entered the military during 1972 when the draft was still in effect.

Results from Phase I have been reported in Nealey (1972); Thornton, Hamilton & Nealey (1973); Thornton & Nealey (1974); Nix, Thornton & Nealey (1974); Maynard, Thornton & Nealey (1974); and Nealey & Thornton (1974). The abstracts of these six reports are reproduced below.

Final Report, October 1972. Perceptions of Navy Basic Training: Recruits Before and During Training, Stanley M. Nealey.

Abstract

Attitudes of enlisted men toward interpersonal influence (the rank and authority structure) in the Navy were explored by administering questionnaires to 165 recruits at the time they joined the Navy and to 365 basic trainees during the final week of Navy basic training. Recruits had fairly accurate expectations of basic training, but underestimated the amount of inconsiderate and punitive leadership they would face during basic. Both groups agreed that the organizational climate of basic training is "tougher" and more punitive than they expect in the Navy itself and much more negative than in most civilian jobs. The climate typical of civilian jobs was seen to be about right to promote good performance and morale. Basic trainees, after actual experience with the military, favored "softer" organizational climates than did recruits.

All five modes of leader power identified by French and Raven (1959) were seen to be effective in eliciting high effort to perform one's duty, but coercive and legitimate power were seen as detrimental to morale.

The research design will be completed under a new contract so conclusions must be tentative, but preliminary results suggest that an all-volunteer military may need to adopt leadership approaches more like those currently typical of civilian work environments.

Technical Report #1, December 1973. Differences in Attitudes Toward Leadership Between "Draft-Induced" and "True" Volunteers, George C. Thornton III, Jack Hamilton, and Stanley M. Nealey.

Abstract

Attitudes toward interpersonal influence in the Navy of enlisted men classified as "draft-induced volunteers" and "true volunteers" were explored by administering questionnaires to 307 Navy recruits at the Armed Forces Examining and Entrance Stations (AFEES) at Los Angeles and Denver and 365 trainees during the final weeks of Navy basic training at San Diego. Recruits and trainees were classified on the basis of Selective Service Lottery number and response to a question of whether the draft influenced their joining the Navy. Specific differences in perception of leadership climate, preferences for styles of interpersonal influence and attitudes toward leadership were found. The "true volunteer" groups expressed preference for close and formal supervision, stated that they expected to like their supervisors, and displayed less aversion to order giving and coercive leadership from superiors. The "draft-induced" groups expressed relatively greater preference for informal leadership and general supervision and perceived that supervisors on civilian jobs are more informal, permissive, and democratic. Differences between the groups increased as a result of basic training experience.

In spite of these differences, draft-induced and true volunteers expressed many similar perceptions of and attitudes toward military leadership. Zero-draft may not produce the large difference in quality and type of recruit that has been suggested by previous studies and speculation. Those differences in attitudes which do seem to exist among persons of different draft pressure may make the training and supervision of enlisted men easier in the future. On the other hand, if the military wishes to attract a larger number of young men into the service, it may have to adopt leadership approaches more like those in civilian jobs in order to change the unfavorable image of the military revealed by the high draft-pressure groups in this study.

Technical Report #2, October 1974. Comparison of Navy and Civilian Leadership Among Navy Recruits, George C. Thornton III and Stanley M. Nealey.

Abstract

With the draft ended, the military has to recruit and retain personnel in direct competition with employment in the civilian sector. This report presents the perceptions of 303 new Navy recruits, 365 Navy basic trainees, and 599 Navy enlisted men with two years of service regarding leadership climate and leadership power practices in the Navy compared to those typical of civilian employment. Civilian leadership practices were generally perceived more positively than those typical of the Navy. By comparison with Navy leadership, civilian leadership was described as involving more equalitarian decision making, less formal superior-subordinate relations, less punitive handling of mistakes by subordinates, less close supervision and more considerate supervision. In addition, Navy leaders were felt to rely less than their civilian counterparts on the use of expert, reward and referent power and more on power based on rank and coercion.

New recruits expected leadership climate on regular Navy duty to be more positive than that in boot camp; the perceptions of experienced enlisted men confirmed this belief. However, perceptions of civilian leadership also became more positive as experience with the Navy increased. Whether these differences are attributable to experience with the Navy or to developmental and maturing processes, the implications are clear: if the Navy wishes to recruit and retain personnel in competition with civilian jobs, it should strive to improve leadership climate and leadership power practices.

Technical Report #3, October 1974. Navy Leadership: Are Recruit Expectations Accurate? Susan Nix, George C. Thornton III, and Stanley M. Nealey.

Abstract

The expectations of 303 new Navy recruits regarding the type of leadership climate and leadership power practices they would experience during basic training and later on in Navy duty were compared with reports of these actual situations by 365 basic trainees and 599 experienced enlisted men. The expectations of the new recruits regarding boot camp were significantly inaccurate on six of ten leadership climate and power variables. These new

recruits were overly optimistic with respect to three of the six variables and overly pessimistic regarding the other three variables. Four out of five predictions by new recruits about leadership climate on regular Navy duty were inaccurate. In most cases, the real Navy leadership climate was more positive than recruits expected. This was so even though new recruits expected that Navy duty would be characterized by much more positive leadership climate than would be typical of boot camp. The potential benefits to recruiting and adjustment to Navy life of more realistic orientation programs are discussed.

Technical Report #4, October 1974. Perceptions and Prescriptions for Basic Training Among Enlisted Men at Three Points in Their Navy Career, William S. Maynard, George C. Thornton III and Stanley M. Nealey.

Abstract

This report analyzes the perceptions of leadership in Navy boot camp from the perspectives of three groups of Navy enlisted men: raw recruits about to enter boot camp (N=303); trainees nearing the end of boot camp (N=365); and enlisted men with nearly two years of enlisted experience (N=599). This study is part of a larger project dealing with interpersonal influence in the Navy which has explored perceptions of five leadership climate dimensions and the frequency of use of five modes of interpersonal power.

In this study, all three groups of respondents had rather unfavorable impressions of the leadership climate in boot camp. Raw recruits expected boot camp to be less punitive, more considerate of individual feelings, and involving closer supervision than was reported by men in boot camp. Men who had approximately 18 months experience beyond boot camp held the most unfavorable perceptions of the leadership climate in boot camp.

The new recruits expected to find considerable expression of legitimate, expert, and coercive power in boot camp and preferred that less emphasis be placed on these sources of power. They expected to find little use of referent-based power, but preferred to see it expressed more. New recruit expectations and preferences were similar regarding the use of expert power.

Recruits in training reported a moderate usage of legitimate power--this frequency was comparable to what they preferred. They also reported that coercive power was used much more than was preferred, and referent power was expressed considerably less than preferred.

Comparison of new recruit perceptions with those of basic trainees revealed the following: new recruits overestimated the extent to which legitimate power would be emphasized (as reported by basic trainees); reward power was exercised considerably more than was anticipated by new recruits; and new recruits accurately estimated the frequency with which referent power would be used.

The use of a cross-sectional research design admittedly limits the strength of conclusion drawn, but the results tentatively suggest some specific ways in which the basic training experience impacts upon attitudes and values toward the leadership process.

Technical Report #5, October 1974. Effective Leadership: Perceptions of Newcomers and Old Timers in the Navy, Stanley M. Nealey and George C. Thornton III.

Abstract

This report analyzes perceptions of optimal vs. actual leadership in Navy basic training and Navy duty from the perspectives of three groups of Navy enlisted men: raw recruits about to enter boot camp (N=303); trainees nearing the end of boot camp (N=365); and enlisted men with nearly two years of enlisted experience (N=599). This study is part of a larger project dealing with interpersonal influence in the Navy which has explored perceptions of five leadership climate dimensions and the frequency of use of five modes of interpersonal power.

Organizational climates considered optimal for eliciting effort and satisfaction differed as a function of amount of organizational experience. "Old timers" in the Navy preferred more positive climates than did "new comers." Experienced enlisted men also indicated that leadership power based on threats and rank were ineffective in eliciting high levels of work effort from them. They indicated that power based on knowledge and mutual respect were much more effective. By contrast, new recruits and basic trainees indicated that all five modes of leadership power would be effective in eliciting effort from them. In general, more experienced enlisted men appeared able to resist leadership power attempts if the approach taken was one they disliked. The differences across groups were interpreted within an organizational socialization framework.

The key issue explored in this study was the discrepancy between leadership seen as optimal for work effort and satisfaction vs. the actual leadership experienced at boot camp and on Navy duty. This discrepancy was more severe at boot camp but

still serious for enlisted men with two years of service. Based on the data in this report, leading targets for improvement in Navy leadership are (1) less hierarchical and more democratic decision making; (2) less formal authority structure; (3) more considerate leadership climate; (4) decreased use of leadership power based on rank and coercive threats; and (5) increased use of leadership power based on mutual respect between superior and subordinates. According to Navy enlisted men, discrepancies between "what is" and "what should be" are minor in the areas of performance evaluation and the dimension of close vs. general supervision. Navy leaders were also given good marks for their frequent use of leadership power based on expert knowledge of the job to be done.

B. Unreported Results

In addition to the already reported primary results from Phase I, there were two exploratory data collection activities in Phase I that have not been reported. One involved administration of the interpersonal influence questionnaire to recruits from four military services. Cross-service analyses of recruit expectations regarding basic training and future military career were performed. The other involved administration of a newly-developed leadership influence attitude questionnaire to a sample of Navy officers at the Navy Post-Graduate School in Monterey. Results from these two activities will be briefly reported below.

1. Cross-service recruit expectations. The first set of unreported data resulted from administration of the interpersonal influence questionnaire at the Armed Forces Examination and Entrance Station (AFEES) in Denver to new recruits. Results from the Navy recruits surveyed at the Denver AFEES (N=142) have been reported above. The questionnaire was administered during the same period to recruits from the other services as follows: Army, N=170; Air Force, N=95, and Marines, N=64. The cross-service

comparison data have not been reported in full because the results showed only slight and, for the most part, insignificant differences between the services. The one exception to this insignificant pattern was the data from Marine recruits. As expected, based on the common perception of the Marines as a service emphasizing toughness and traditional military discipline, the expectations of Marine recruits differed in several respects from those of other recruits. The Marine recruits, like others, had the expectation that basic training would be a time of high emphasis on hierarchical authority, formality, and close supervision with little tolerance of mistakes and little considerate behavior shown by superiors. However, the Marine recruits expected, significantly more than the other services, that close supervision and low tolerance of mistakes would continue during regular duty in the Marine Corps. In their perceptions of civilian work situations, the Marine recruits emphasized the "softer" aspects of participative decision making, informality and considerate supervision. While the above findings could give the impression that Marine recruits were looking forward with reluctance to a "tough" career, other data suggest they were more positive about traditional military leadership climate than were recruits of the other services. When asked to indicate the point on the organizational climate dimensions that would elicit the most work effort and the point that would lead to high job satisfaction, Marine recruits differed significantly from other recruits on most dimensions. Marine recruits both expected and approved of greater formality

in superior-subordinate relations, less tolerance of mistakes, closer supervision, and less consideration from supervisors than was typical of recruits to the other services. It is important to note, however, that these results refer to comparisons across services. The data from Marine recruits like those from other services indicated strongly that they felt the Marine Corps could draw from them more effort to perform duty and greater satisfaction if it would move toward shared decision making, less formality, greater tolerance of mistakes and more consideration from superiors.

Data from the section of the questionnaire based on the five types of leadership power are predictable from the results described above. Marine recruits felt that during basic training moderate use of authority based on rank (legitimate power) and use of threat and punishment (coercive power) was appropriate. Recruits from other services were less tolerant of these "hard nosed" forms of power. Marine recruits also diverged from other service recruits on several leadership attitudes. They agreed, for instance, that off-duty behavior should be subject to military discipline and felt less strongly than did other recruits that officers should consider the feelings of their subordinates in making decisions.

The picture projected by the above findings is that Marines expect basic training and the Marine Corps to be tough and they are relatively more accepting of a hard nosed leadership climate than are recruits to the other services. They claim they would

work harder and be more satisfied if the climate were a bit more human relations oriented, but on the whole seem reasonably satisfied with their prospects. This interpretation is strengthened by their report that they would have joined the military even if there had been no draft.

2. Leadership power attitudes of officers. An interpersonal influence attitude questionnaire consisting of 55 Likert-type items was developed and administered to 89 Naval Officers at the U.S. Navy Post-Graduate School in Monterey, California. The sample consisted of mid-career officers. Thirty-nine percent were Lieutenants and 48 percent were Lt. Commanders. They averaged approximately 32 years of age, and most had between five and ten years of experience since becoming commissioned officers.

The 55 Likert items are listed in Appendix I, together with item means and standard deviations. A principal components factor analysis was performed and orthogonally rotated. Two factors accounted for the majority of the variance. The ten highest loading items on each factor are displayed, with factor loadings, in Appendix II. The first factor was given the name "Respect for formal military authority and discipline." As an inspection of the items will show, it consists primarily of items reflecting the use of legitimate and coercive power. The second orthogonal factor was given the name "Formality and distance of interpersonal relations; Social distance between superiors and subordinates." As can be seen, the item content reflects traditional values regarding social distance between superiors and subordinates.

In a second part of the questionnaire officers were asked to rate their satisfaction with the current authority system in the Navy. On a scale where "1" was "extremely dissatisfied" and "5" was "extremely satisfied" the mean was 3.34 with a standard deviation of .765. Several additional items probed attitudes toward the need for change in the Navy's authority system and the amount of change these officers felt would be necessary in the Navy's authority system if the draft were eliminated. Answers indicated that respondents felt a moderate amount of change would be necessary (mid point on a five point scale). Respondents were asked to write down suggestions of changes they thought would be necessary in the Navy if the draft were eliminated. As expected, since the focus of the questionnaire was the Navy's authority system, about three-quarters of the suggestions referred to the rank structure, authority, discipline and leadership style. The suggestions were content analyzed and the results are listed in Appendix III. Careful inspection of the item analysis leads to the following generalizations: (a) about equal numbers felt the rank structure should be tightened up and relaxed; (b) the dominant view was that more authority would need to be delegated to subordinates; (c) rewards in the form of pay and promotion would need to be emphasized more; (d) more discipline is needed; and (e) leadership should move toward a human relations orientation. Obviously, there were sharp differences of opinion but the split for and against more human relations oriented leadership was about 60/40. This moderate shift toward a leadership climate

emphasizing better human relations is consonant with the means on Factor I (see Appendix II); yet the means on Factor II, the social distance factor, indicate general support for the notion that superiors and subordinates should not become too close and chummy.

Once again, it should be emphasized that this officer study was exploratory and used a questionnaire that had not been standardized, let alone validated. Taking the results at face value, however, the majority of officers in this sample showed awareness of the message that seemed to be coming quite strongly from enlisted men, whether new recruits or more experienced. That is, the Navy would achieve better performance from its personnel and better morale if the leadership climate moved toward a model more characteristic of civilian work environments and relied less on authoritarian discipline.

Phase II

The second phase of the project took as its objective the development and application of a critical incident-based measure of leadership power. The impetus for this effort was the project team's belief that more valid measures of attitudes toward the use of leadership power could be obtained by indirect rather than direct measures. One rationale for this stance was the realization that actual leadership behavior as observed in a number of Navy duty situations was somewhat more coercive and

authoritarian than one would expect from analysis of the leadership attitudes of Navy officers as measured by direct methods like those used in our study at the Navy Post-Graduate School in Monterey (reported above).

A second reason for the development of a measure built on critical incidents in the Navy was the project team's judgment that leadership attitude questionnaires developed and standardized in the civilian sector were not fully appropriate to the study of military leadership. The rationale for this belief was the observation that the task environment, the organizational mission, and the culture of military tradition regarding good leadership was sufficiently different from the civilian sector as to reduce the appropriateness of leadership measures developed in the civilian sector.

The results of our research efforts in Phase II of the project have been reported by Thornton, Nealey & Wood (1975); Thornton, Wood & Nealey (1975); and Wood, Nealey & Thornton (1975). The abstracts of these three reports are reproduced below.

Technical Report #6, November 1975. Development of a Critical Incident-Based Measure of Leadership Power, George C. Thornton III, Stanley M. Nealey and Michael T. Wood.

Abstract

This report describes in detail the initial steps in the development of a new research instrument to study leadership processes. It describes a semi-structured method used to elicit a large number of leadership incidents including accounts of problems encountered, important contextual information, leader actions, and incident outcomes. The method of evaluating and revising this

raw information and the format and use of the new research instrument is described. A summary of incidents is provided which classifies parts of the incident into type of problem and mode of interpersonal influence expressed in the leader's action. Specific examples of leadership incidents are illustrated.

Technical Report #7, November 1975. Characteristics of Critical Leadership Incidents in the Navy, George C. Thornton III, Michael T. Wood and Stanley M. Nealey.

Abstract

Critical incidents involving leadership problems encountered in the Navy were elicited from 70 Navy officers. Each incident included problem, leader action taken and incident outcome. Of 301 original incidents, 31 were discarded as incomplete. The remaining 270 incidents were rated by five Navy enlisted veterans who received careful training in the judgmental task but were "blind" with respect to the hypotheses under study. Judgments involved the type of problem involved in the incident (six types were identified), the leadership action taken (the French and Raven, 1959, modes of interpersonal power), the difficulty of the problem, the pressure of the setting, and the outcomes in terms of effect on performance and morale. Ratings displayed acceptable reliability.

Of the four independent variables (problem type, difficulty, setting, and type of leadership power used) type of power accounted for the largest proportion of the variance in the performance and morale dependent variables. Abuse of authority and disobedience were the problems with greatest impact on outcomes. As found in other research in this program, Expert, Reward and Referent power had beneficial outcomes while Coercive and Legitimate power had negative outcomes. However, the efficacy of different forms of leadership power varied by type of problem; another confirmation of interaction theories of leadership!

Technical Report #8, November 1975. Effects of Leadership Power Applied to Different Kinds of Organizational Problems: A Critical Incident Approach, Michael T. Wood, Stanley M. Nealey, and George C. Thornton III.

Abstract

A critical incident-based research instrument was used to collect normative data concerning effective power-based leadership

actions in response to different kinds of organizational problems. The research strategy emphasized (1) the study of alternate forms of leadership power; (2) behavioral measurement of leadership actions; and (3) an interactive model of effective leadership. The development of the instrument is briefly described. Normative data were gathered from 110 officers and 110 enlisted men aboard an aircraft carrier, using five parallel forms of the instrument. In response to six kinds of problem situations, participants indicated (1) the action they would take; (2) the usual "Navy way" of acting; and (3) the expected performance and morale outcomes of each of five possible actions. The actions were based on French and Raven's (1959) forms of power: expert, reward, coercive, legitimate, and referent.

Results showed that, across types of problems, referent, reward, and expert power were judged to produce the most favorable performance outcomes; referent and reward power were also seen as the best ways to enhance morale. Effectiveness of power forms depended on the type of problem to which they were applied. Performance and morale outcomes were highly correlated, although (1) legitimate and coercive power tended to inhibit morale more than performance, and (2) reward and referent power tended to have more favorable impacts on morale. The perceived outcomes of different power-based actions generally were not related to the judge's experience in the Navy. Actions that respondents would take differed from those they thought most Navy leaders would take but matched the actions they thought would have the best impacts. While expert and referent power were most often the "action I would take," legitimate and expert power were most often considered the "Navy way."

Implications were discussed for future work on (1) leadership power theory, (2) measurement of leadership behavior, and (3) leadership development in the Navy.

References

- French, J. R. P., Jr. and Raven, B. The bases of social power. In D. Cartwright (ed.), Studies in social power. Ann Arbor, University of Michigan, Institute for Social Research, 1959.
- Hollander, E. P. and Julian, J. W. Contemporary trends in the analysis of leadership processes. Psychological Bulletin, 1969, 71, 387-397.
- Maynard, W. S., Thornton, G. C., III, and Nealey, S. M. Perceptions and prescriptions for basic training among enlisted men at three points in their Navy career (Technical Report No. 4). Seattle, Washington: Battelle, Human Affairs Research Centers, 1974.
- Nealey, S. M. Perceptions of Navy basic training: Recruits before and during training (Final Report). Seattle, Washington: Battelle, Human Affairs Research Centers, 1972.
- Nealey, S. M. and Thornton, G. C., III. Effective leadership: Perceptions of newcomers and old timers in the Navy (Technical Report No. 5). Seattle, Washington: Battelle, Human Affairs Research Centers, 1974.
- Nix, S., Thornton, G. C., III, and Nealey, S. M. Navy leadership: Are recruit expectations accurate? (Technical Report No. 3). Seattle, Washington: Battelle, Human Affairs Research Centers, 1974.
- Thornton, G. C., III, Hamilton, J., and Nealey, S. M. Differences in attitudes toward leadership between "draft-induced" and "true" volunteers (Technical Report No. 1). Seattle, Washington: Battelle, Human Affairs Research Centers, December 1973.
- Thornton, G. C., III, and Nealey, S. M. Comparisons of Navy and civilian leadership among Navy recruits (Technical Report No. 2). Seattle, Washington: Battelle, Human Affairs Research Centers, 1974.
- Thornton, G. C., III, Nealey, S. M., and Wood, M. T. Development of a critical incident-based measure of leadership power (Technical Report No. 6). Seattle, Washington: Battelle, Human Affairs Research Centers, 1975.
- Thornton, G. C., III, Wood, M. T., and Nealey, S. M. Characteristics of critical leadership incidents in the Navy (Technical Report No. 7). Seattle, Washington: Battelle, Human Affairs Research Centers, 1975.

Wood, M. T., Nealey, S. M. and Thornton, G. C., III. Effects of leadership power applied to different kinds of organizational problems: A critical incident approach (Technical Report No. 8). Seattle, Washington: Battelle, Human Affairs Research Centers, 1975.

APPENDIX I

Interpersonal Influence Attitude Questionnaire Items, Item Means
and Standard Deviations: Data from 89 Naval Officers at the
U.S. Navy Post-Graduate School

<u>Mean¹</u>	<u>Standard Deviation</u>	<u>Item Number</u>	
4.01	.93	1.	An officer should seek advice on important decisions from non-commissioned officers with more experience.
3.37	1.06	2.	Desire for promotion is the major reason why officers try to perform well.
2.45	.91	3.	The saying "mine is not to question why; mine is but to do or die" does not apply even under combat.
3.02	1.06	4.	A seaman who smirks at a Captain's Mast should be busted.
1.52	.75	5.	It is all right for a chief and a junior officer to be on a first name basis during duty hours.
4.15	.92	6.	Effective leadership is the single most important factor in the effectiveness of a military unit.
3.43	1.18	7.	Orders are rarely necessary among officers who work together closely.
3.70	1.12	8.	An officer should never make requests of men which he would not carry out himself.
3.13	1.01	9.	Skill and education should count just as much in determining military pay as does rank and time in service.
2.72	.99	10.	When an order is received, the first and only thought should be immediate compliance.
3.87	1.00	11.	The most effective senior officers are tolerant of mistakes.
4.70	.55	12.	An officer should get to know each of his immediate subordinates.

¹Response scoring: 1 = strongly disagree
2 = disagree
3 = partly agree/partly disagree
4 = agree
5 = strongly agree

<u>Mean</u>	<u>Standard Deviation</u>	<u>Item Number</u>	
2.97	1.15	13.	In a military organization, "Familiarity breeds contempt!"
3.89	1.02	14.	An officer who isolates himself from his men is rarely effective.
3.13	1.06	15.	Problems often occur when officers and enlisted men attend social functions together during off-duty hours.
1.92	.93	16.	Senior officers don't have to be concerned with "getting along with others" as do junior officers.
3.16	1.06	17.	Orders are rarely given just to show authority.
2.67	1.16	18.	Pay does not affect performance in the Navy.
3.07	1.29	19.	It is more important to follow orders in combat than in non-combat situations.
2.57	.96	20.	A subordinate who refuses an order in combat should be shot for endangering his unit.
3.31	1.10	21.	Officers should always make clear and final decisions.
3.22	1.23	22.	To a seaman, an order from the Captain should carry no more weight than an order from a superior of any rank.
2.08	.88	23.	A subordinate officer should accept his orders and make suggestions only when they are requested.
1.73	.60	24.	Punishment (or threat of punishment) is much more powerful than praise in getting subordinates to perform effectively.
2.93	1.01	25.	The threat of being "busted" or subjected to other forms of military discipline is not necessary to keep seamen in line.
3.57	.98	26.	You can respect an officer's orders even if you do not respect him as a man.
3.73	.88	27.	In making decisions, officers have to consider the feelings of their men.
2.60	.97	28.	A subordinate should never ask "why" after receiving an order.

<u>Mean</u>	<u>Standard Deviation</u>	<u>Item Number</u>	
2.64	1.17	29.	Off-duty behavior of enlisted men should not be subject to military discipline.
3.85	.88	30.	A military unit can't perform well without "esprit de corps."
3.56	1.03	31.	The hand salute serves a very useful purpose in the military.
4.43	.72	32.	Enlisted men on duty should never address an officer by his first name.
3.96	.89	33.	The Chief's control of work assignments and performance evaluation are major factors in getting good performance from his men.
3.11	.94	34.	Leadership cannot be learned from books or taught a classroom.
2.12	.80	35.	A superior should be able to perform all of the jobs of the men he supervises.
2.34	.96	36.	Most enlisted men would rather be told what to do than be asked for their opinions.
2.93	1.09	37.	The junior officer who wants to get ahead had better not disagree openly with superiors.
3.58	.86	38.	Leadership must be learned by actual experience.
2.51	.79	39.	Without a rugged boot camp experience, recruits would have no respect for the service.
1.87	.75	40.	In the military, respect from peers is not a very important cause of effective performance.
3.84	.91	41.	An officer should not discuss his own personal problems with a subordinate.
3.44	.82	42.	When your commanding officer invites you to his home for cocktails, you had better go!
4.02	.79	43.	Loyalty to superiors is essential at all times, whether in combat or not.
3.21	1.00	44.	Enlisted men should never "go over the head" of their superior.
1.75	.62	45.	The Navy would be much more effective if NCO's had less decision-making power.

<u>Mean</u>	<u>Standard Deviation</u>	<u>Item Number</u>	
2.49	1.15	46.	In combat, it is not necessary for all the men in a unit to understand the unit's mission.
3.24	.83	47.	Drill and ceremony build spirit.
3.11	1.01	48.	A seaman should not be on a first name basis with his chief during off-duty hours.
3.15	1.13	49.	A college education should not be a prerequisite for becoming an officer in the Navy.
3.22	.95	50.	The Navy as a whole would function just as well if about half as many orders were given.
4.61	.59	51.	An officer should never criticize other officers in the presence of enlisted men.
2.96	1.04	52.	A unit can't perform effectively unless all the men in it believe in the unit's mission.
2.43	.96	53.	If you do a good job you can usually avoid undesirable work assignments.
4.33	.60	54.	Officers should always lead by example.
2.87	.88	55.	In order to be effective, an officer should be liked by his men.

APPENDIX II

Items, Item Means and Factor Scores
for the First Two Orthogonal Factors
of the Interpersonal Influence Attitude Questionnaire,
Navy Post-Graduate School

Factor I: "Respect for formal military authority and discipline."

<u>Item Number</u>	<u>Factor Loadings</u>	<u>Mean¹</u>	<u>Item</u>
26	.599	3.57	You can respect an officer's orders even if you do not respect him as a man.
4	.529	3.02	A seaman who smirks at a Captain's Mast should be busted.
39	.529	2.51	Without a rugged boot camp experience, recruits would have no respect for the service.
10	.503	2.72	When an order is received, the first and only thought should be immediate compliance.
31	.498	3.56	The hand salute serves a very useful purpose in the military.
38	.493	3.58	Leadership must be learned by actual experience.
28	.484	2.60	A subordinate should never ask "why" after receiving an order.
34	.434	3.11	Leadership cannot be learned from books or taught in a classroom.
23	.430	2.08	A subordinate officer should accept his orders and make suggestions only when they are requested.
3	-.522	2.45	The saying "mine is not to question why; mine is but to do or die" does not apply even under combat.

¹Response scoring: 1 = strongly disagree
2 = disagree
3 = partly agree/partly disagree
4 = agree
5 = strongly agree

Factor II: "Formality and distance of interpersonal relations;
Social distance between superiors and subordinates."

<u>Item Number</u>	<u>Factor Loadings</u>	<u>Mean¹</u>	<u>Item</u>
5	.640	1.52	It is all right for a chief and a junior officer to be on a first-name basis during duty hours.
30	-.436	3.85	A military unit can't perform well without "esprit de corps."
12	-.448	4.70	An officer should get to know each of his immediate subordinates.
41	-.450	3.84	An officer should not discuss his own personal problems with a subordinate.
13	-.462	2.97	In a military organization, "Familiarity breeds contempt!"
15	-.479	3.13	Problems often occur when officers and enlisted men attend social functions together during off-duty hours.
48	-.521	3.11	A seaman should not be on a first-name basis with his chief during off-duty hours.
31	-.571	3.56	The hand salute serves a very useful purpose in the military.
43	-.614	4.02	Loyalty to superiors is essential at all times, whether in combat or not.
32	-.716	4.43	Enlisted men on duty should never address an officer by his first name.

¹Response scoring: 1 = strongly disagree
2 = disagree
3 = partly agree/partly disagree
4 = agree
5 = strongly agree

APPENDIX III

Content Analysis of Suggestions for Change
in the Navy's Authority System

Question: "Please write below suggestions for changes in the authority system you think will be necessary in the Navy if the draft is eliminated."

<u>Responses</u>	<u>Frequency</u>
Present system is OK	(7)
Rank structure	(7)
Tighten chain-of-command	3
Put petty officer back in chain-of-command	1
Less emphasis on rank	1
Eliminate officer/enlisted concept (direct lineal system)	1
Less structure	1
Authority	(18)
More authority to competent subordinates (includes both junior officers and enlisted)	11
Department heads need authority to fire	2
Modify assignment authority	3
Delegate authority	1
Match authority and responsibility	1
Pay/Promotion	(10)
Raise pay	2
Incentives for performance	3
Accelerated promotions	2
Change in wage structure	1
Recognition of motivating forces	1
Separate rank and pay grade for officers	1
Discipline	(13)
More authoritarian discipline	4
More discipline	3
Less discipline	3
More like Marines	2
Less force in boot camp	1
Leadership	(4)
Less authoritarian leadership	2
Referent leadership	2

ResponsesFrequency

Miscellaneous

(15)

More status building

3

Increase requirements

2

More flexibility to answer human needs

2

Throw out outmoded regulations

1

. More competition

1

Senior officers must "tune in" to manpower problems

1

Eliminate executive officer and make into separate
department

1

Need feedback and suggestions from subordinates

2

Improve communications

1

Decentralization of authority for administrative
matters

1

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